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## PATENT CLAIMS:

- 1. A diagnostic agent for detecting a colorectal carcinoma, characterized in that it serves to detect the presence of at least one HERG potassium channel in a tissue biopsy of the human colon or rectum or in lymph nodes, which are free of HERG potassium channels in a healthy human, or in body fluids.
- 2. A method for diagnosing a cancer, characterized in that the presence of at least one HERG potassium channel is detected in a tissue sample or in lymph nodes, which are free of HERG potassium channels in a healthy person, or in a body fluid.
- 3. The method according to Claim 2, characterized in that a colorectal cancer is diagnosed by detecting at least one HERG potassium channel in a tissue biopsy of the human colon or rectum or in lymph nodes.
- 4. A use of the antiarrhythmic agent 4-[1-[2-(6-methyl-2-pyridinyl)ethyl-4-piperidinyl]carbonyl]methanesulfoanilide 2HCI (E-4031) of formula I

- for treatment of a colorectal carcinoma caused by the presence of a HERG potassium channel.
  - 5. The use of the antiarrhythmic agent 4-[1-[2-(6-methyl-2-pyridinyl)ethyl-4-piperidinyl]carbonyl]methanesulfoanilide-2HCl (E-4031) of formula I for production of a pharmaceutical drug for treatment of cancer characterized by the presence of a HERG potassium channel.

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6. Use of the antiarrhythmic agent 4-[1-[2-(6-methyl-2-pyridinyl)ethyl-4-piperidinyl]carbonyl]methanesulfoanilide 2HCl (E-4031) of formula I

- 5 for treatment of colorectal cancer.
  - 7. Use of the antiarrhythmic agent 4-[1-[2-(6-methyl-2-pyridinyl)ethyl-4-piperidinyl]carbonyl]methanesulfoanilide-2HCl (E-4031) of formula I for production of a pharmaceutical drug for treatment of colorectal cancer.

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